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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 09/892,783
Filing Date: June 27, 2001
Appellant(s): BAHREN ET AL.

Patrick J. O'Shea
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 2/26/2007 appealing from the Office action mailed 10/26/2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,101,499	Ford et al	August 8, 2000
5,371,868	Koning et al	December 6, 1994

MOST Cooperation, "MOST Specification Framework Rev 1.1," 1999, pgs. 1-60

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1> Claims 7, 10, 12, 14, 18 and 20 are rejected under 35 U.S.C § 103(a) as being unpatentable over Ford et al, U.S Patent No. 6.101.499 ["Ford"] in view of Koning et al, U.S Patent No. 5.731.868 ["Koning"].

2> As to claim 7, Ford discloses a first network which can be linked to a second network, the first network including a plurality of network devices linked with one another and have an associated first address for unique identification in the first network [column 6 <lines 54-57> | column 9 «lines 11-16»], a method for generating a second address for each said device comprising:

manipulating the first address of each device to derive the second address which uniquely identifies each such device in the second network [Figures 5a, 5b | Figures 3A-3C | column 2 <lines 19-21> | column 3 <lines 39-46> | column 8 <lines 50-65> | column 7 <lines 25-64> | column 9 <lines 4-9> | column 10 «line 55» to column 11 «line 33» where: Ford manipulates the Ethernet address of each device by appending a network identifying portion (prefix) to the Ethernet address.].

Ford does not disclose however, manipulating the first address by mathematically summing the first address with a predetermined number, the sum representing the second address.

3> Koning is directed towards an addressing system for dynamically generating a second address for a device in a first network where the device has a first address, the second address representing the device's address in a second network. To this end, Koning discloses manipulating a first address of a device by mathematically summing a predetermined number and the first address to derive the second address which is the sum of the first address and the predetermined number [column 1 «lines 11-19» | column 6 «lines 15-22» | claims 3, 4 and 6]. Ford is also directed towards dynamically generating addresses for devices

but lacks Koning's ability to calculate multiple addresses for different networks from a single address. Thus, it would have been obvious to one of ordinary skill in the art to incorporate Koning's address generation functionality into Ford's scheme. Such a combination would supplement and improve Ford's system by enabling another method of deriving from a single address a plurality of unique network addresses for devices to interact in a plurality of networks.

4> As to claim 10, Ford discloses the method of claim 7, wherein the first network comprises a private network and the second network is a public network [Figure 5C <item 126> | column 2 <lines 43-61> | column 3 <lines 39-46>].

5> As to claim 12, Ford discloses the method of claim 7, wherein the second network comprises the Internet [Figure 5C <item 126>].

6> As to claim 14, as it does not limit or further define over the previously claimed limitations, it is similarly rejected for at least the same reasons set forth for claim 7.

7> As to claim 18, Ford discloses the network of claim 14, wherein the first network comprises a private network and the second network comprises a public network [Figure 5C <item 126> | column 2 <lines 43-61> | column 3 <lines 39-46>].

8> As to claim 20, Ford discloses the network of claim 14, wherein the second network comprises the Internet [Figure 5C <item 126>].

9> Claims 11 and 19 are rejected under 35 U.S.C § 103(a) as being unpatentable over Ford and Koning, in further view of the MOST Specification Framework Rev 1.1 ["MOST spec"].

10> As to claim 11, Ford does disclose that the first network comprises s a local area network (LAN) [column 6 <lines 34-37>] but does not specifically disclose that first network is a MOST network.

11> The MOST spec teaches a LAN that is preferably implemented as a MOST network [sections 3 and 8]. It would have been obvious to one of ordinary skill in the art to implement Ford's LAN as a MOST network as disclosed by the MOST spec, so Ford's network can obtain the stated advantages of utilizing a higher performance optical fiber network is more robust and faster than a typical network.

12> As to claim 19, as it is merely a network that implements the step of the method of claim 11, it does not teach or further define over the limitations of claim 11. Therefore, claim 19 is also rejected for the same reasons as set forth in claim 11, supra.

13> Claims 13 and 21 are rejected under 35 U.S.C § 103(a) as being unpatentable over Ford, Koning and the MOST spec, in further view of Inoue et al, U.S Patent No. 6.163.843 ["Inoue"].

14> As to claim 13, Ford does not disclose a method wherein the first network includes a firewall as an interface between the first network and the second network.

15> Inoue discloses a method wherein a first network includes a firewall as an interface between the first network and a second network [Figure 2 <item 1b, 4b> | column 2 <lines 14-20>]. It would have been obvious to one of ordinary skill in the art to include a firewall in Ford's first network to securely allow the transmission of messages outside of the first network.

16> As to claim 21, as it is merely a claim to a network that implements the steps of the methods of claim 13, they do not teach or further define over the limitations of claim 13. Therefore, they are also rejected for the same reasons as set forth in claim 13, supra.

17> Claim 22 is rejected under 35 U.S.C § 103(a) as being unpatentable over the MOST spec, in view of Ford, in further view of Koning.

18> The MOST spec discloses a multimedia system for implementation in a vehicle [section 2.1] comprising:

a plurality of multimedia devices communicably coupled through a communication link to form a private MOST network, wherein each of said plurality of multimedia has associated therewith a first address that uniquely identifies each said multimedia device in the MOST network [sections 2.4, 2.5, 3.11.1, 4.3.3.1].

The MOST spec does not explicitly disclose that each of said plurality of multimedia devices has associated therewith a second address that uniquely identifies each said multimedia device in a public network, wherein the second address is derived by mathematically summing a predetermined number to the corresponding first address such that each second address is the sum of the first address and the predetermined number and that each second address is different than the corresponding first address.

19> Ford discloses a plurality of devices that has associated therewith a second address that uniquely identifies each said multimedia device in the public network, wherein the second address is derived from the corresponding first address [Figures 3A-3C | column 2 <lines 19-21> | column 3 <lines 39-46 and 47-55> | column 8 <lines 50-65> | column 6 <lines 54-60>]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include Ford's second address generation functionality into the MOST spec's multimedia network to simplify network connection, administration, and connecting to a network outside the private MOST network for MOST spec's multimedia devices [Ford – abstract].

Ford, however, does not expressly disclose mathematically summing to create the second address.

20› Koning is directed towards an addressing system for dynamically generating a second address for a device in a first network where the device has a first address, the second address representing the device's address in a second network. To this end, Koning discloses manipulating a first address of a device by mathematically summing a predetermined number and the first address to derive the second address which is the sum of the first address and the predetermined number [column 1 «lines 11-19» | column 6 «lines 15-22» | claims 3, 4 and 6]. Ford is also directed towards dynamically generating addresses for devices but lacks Koning's ability to calculate multiple addresses for different networks from a single address. Thus, it would have been obvious to one of ordinary skill in the art to incorporate Koning's address generation functionality into Ford's scheme. Such a combination would supplement and improve Ford's system by enabling another method of deriving from a single address a plurality of unique network addresses for devices to interact in a plurality of networks.

Further, Koning's invention is commensurate with the goals of the MOST network. Koning desires to enable a device to interact in a plurality of networks with a variety of addresses mathematically derived from a single address [see Koning, column 1 «lines 11-19» | claim 6]. The combination of Koning, Ford and the MOST spec would create a dynamic network addressing scheme that enables unique addressing of network devices in vehicles.

21› Claims 23 and 25 are rejected under 35 U.S.C § 103(a) as being unpatentable over the MOST spec, Ford and Koning, in further view of Inoue.

22> As to claim 23, the MOST spec does not disclose a multimedia system comprising a firewall residing on the MOST network for linking the MOST network to the public network.

23> Inoue discloses a method wherein a multimedia system comprising a firewall residing on a mobile network for linking the mobile network to the public network [Figure 2 <items 1b, 4b, 6> | column 2 <lines 14-20>]. It would have been obvious to one of ordinary skill in the art to implement Inoue's network functionality that comprises a firewall into the MOST spec's MOST network to inspect packets as they are leaving the MOST spec's MOST network and to securely allow the transmission of messages outside of the MOST network.

24> As to claim 25, the MOST spec discloses the multimedia system of claim 23 wherein the public network comprises the Internet [section 2.5 – see diagram "MOST Open Model' with TCP/IP network protocol embedded in one of the devices].

(10) Response to Argument

I. FORD AND KONING DISCLOSE THE LIMITATIONS OF CLAIMS 7, 14 AND 22

Appellant's primary argument for independent claims 7, 14 and 22 is that Koning does not teach deriving a second address from a first address and assigning both the first and second addresses to a single device. Appellant argues that there is no teaching in Koning that a network device can have more than one address [Appellant's Appeal Brief, pg. 10, ¶1].

Appellant's arguments are not persuasive because they are premised on a flawed interpretation of Koning.

A. Appellant's interpretation of Koning is incorrect because Koning's bridge should be interpreted as Appellant's claimed device.

Appellant's argument is premised on characterizing Koning's bridge ports as separate devices. Appellant argues that Koning teaches assigning the two addresses to different devices - the two ports within a single network device (the bridge) [Appellant's Brief, pg. 12, ¶1]. This is a strained interpretation of Koning's teachings because under a fair and proper reading, Koning's bridge, and not the bridge's ports, should be interpreted as Appellant's device. Appellant's position in interpreting Koning's ports as a device is unsupported by Koning's specification.

Appellant's interpretation ignores Koning's teaching that the bridge is a single packet relaying device. For example, Koning describes one benefit of his invention as "enhanc(ing) network management through the use of stored and derived addresses having logical, mathematical relationships, which can be readily recognized as belonging to the *same packet relaying device*" (emphasis added) [column 3 «lines 16-19»]. Koning's figures also depict the bridge as a single device that comprises a variety of components including multiple ports [Figures 1 and 6]. Contrary to Appellant's strained interpretation, Koning never refers to the bridge's ports as "devices." Koning's invention is directed at assigning a plurality of addresses to one single packet relaying device.

Furthermore, in discussing the background of the invention, Koning describes the functionality of prior art bridges. Koning describes a bridge as a multi-port communication device comprising a plurality of ports, each port being assigned a different address and

connected to a different network [abstract | column 1 «lines 29-38»]. Each port within the single bridge device gives the bridge a presence in different networks because each port is assigned a different address [Figure 6 «items 74a, 74b, 74c, 74d» | column 2 «lines 53-68»]. This functionality is analogous to Appellant's claimed device which relies on a first and second address whereby the first address identifies the device in a first network while the second address identifies the device in a second network.

B. Koning provides the motivation to combine the teachings of Koning and Ford to meet the limitations of claim 7.

The strongest rationale for combining references is a recognition, expressly or impliedly in the prior art or drawn from a convincing line of reasoning based on established scientific principles or legal precedent, that some advantage or expected beneficial result would have been produced by their combination. In re Sernaker, 702 F.2d 989, 994-95 (Fed. Cir. 1983).

Here, Koning impliedly recognizes an expected beneficial result from combining Koning's teachings with Ford. As noted by Appellant, Ford is directed towards a single network device with a plurality of addresses [Appellant's Brief, pg. 10, ¶3]. Koning is also directed towards providing a plurality of addresses to a single network device (the network bridge). Ford teaches a scheme for generating addresses for devices but lacks Koning's ability to generate a complete set of addresses for different networks from a single address [see Koning, column 2 «lines 11-21»]. Koning describes an address generation scheme that "provides maximal flexibility in the number of addresses that the address memory can be made to specify, and efficiency in the use of address memory space" [column 2 «lines 63-66»].

As such, modifying Ford with Koning's teachings of a dynamic address generation scheme would improve Ford's network devices because costs, space and power consumption would be reduced in those devices [see Koning, column 1 «line 67» to column 2 «line 4»]. Thus, one of ordinary skill in the art would have been motivated to incorporate Koning's teachings into Ford in order more efficiently use address memory space and provide flexibility in the addresses that can be specified in memory.

II. CONCLUSION

With respect to claims 14 and 22, Appellant repeats arguments made against claim 7 so the foregoing response applies equally to those claims. Appellant does not separately argue the dependent claims so they are not formally addressed in this answer.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

DC

May 15, 2007

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5/24/07

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